

1 LISA ANNE HAAGE  
2 ASSISTANT REGIONAL COUNSEL  
3 ENVIRONMENTAL PROTECTION AGENCY, REGION IX  
4 215 Fremont Street  
5 San Francisco, California 94105  
6 (415) 974-8043

AR0020

Attorney for Complainant

7 LATHAM & WATKINS  
8 DAVID L. MULLIKEN  
9 KARL S. LYTZ  
10 701 "B" Street, Suite 2100  
11 San Diego, California 92101-8197  
12 (619) 236-1234

Attorneys for Respondent Montrose  
Chemical Corporation of California

11 UNITED STATES  
12 ENVIRONMENTAL PROTECTION AGENCY  
13 REGION IX

13 IN THE MATTER OF: )

14 Montrose Chemical Corporation of )  
15 California, )

16 RESPONDENT. )

17 Proceeding Under Section 106(a) )  
18 of the Comprehensive Environ- )  
19 mental Response, Compensation, )  
(42 U.S.C. §9606(a)) )

FIRST AMENDMENT TO ADMINIS-  
TRATIVE ORDER ON CONSENT  
U.S. EPA Docket No. 85-04

21 I

22 INTRODUCTION

23 Montrose Chemical Corporation of California ("Montrose")  
24 and the Environmental Protection Agency, Region IX ("EPA")  
25 previously executed an Administrative Order on Consent, U.S.  
26 EPA Docket No. 85-04 (the "Order") concerning the performance  
27 of specified remedial investigative work ("RIW") at and in  
28 the vicinity of a former Montrose manufacturing facility in

1 Torrance, California. Since then, Montrose has completed  
2 substantial portions of the RIW described in the Order.

3 Based on the results of those effects, Montrose and EPA  
4 agree that certain amendments to the terms of the Order and  
5 the scope of RIW as defined in Appendix A thereof would be  
6 appropriate. This First Amendment to the order is intended to:

7 (1) provide, where necessary, time limits for the submission  
8 of third and subsequent draft sampling plans and reports; (2)  
9 revise the scope of certain RIW tasks; (3) add additional RIW  
10 tasks for sampling on-site, in the area in the vicinity  
11 of the site and off-site drainage ways; (4) provide Montrose's  
12 and EPA's technical representatives greater flexibility in  
13 the finalization of sampling plans.

## 14 II

### 15 AMENDMENTS

16 A. Article IV E of the Order is amended by adding an  
17 additional sentence at the end thereof which states as follows:

18 "If EPA submits an additional set of  
19 comments on a revised plan which requires a  
20 third or subsequent draft of the plan,  
21 Montrose shall submit the third or  
22 subsequent draft of the plan within fifteen  
23 (15) days of receipt of EPA's additional  
24 comments."

25 B. Article IV K of the Order is amended by modifying the  
26 second paragraph thereof, commencing on page 12, line 27 of the  
27 Order, to read as follows:

28 "The parties agree that the Remedial

Investigative Work which is to be implemented using a phased approach is not to be considered 'additional work' as contemplated by this Article, except as expressly provided for elsewhere in this Agreement, Appendix A or any amendments to this Agreement or Appendix A. The necessity of the performance of phased work shall be determined pursuant to the provisions of Appendix A."

C. Article IV(I)(1) of the Order is amended by deleting "Therese Gioia, (T-4-2)" and substituting in its place "Johanna Miller, (T-4-2)."

D. Article XXI A of the Order is amended by deleting "Therese Gioia, (T-4-2)" and substituting in its place "Johanna Miller, (T-4-2)".

E. Article XXI B of the Order is amended by deleting "Samuel Rotrosen, President" and the associated address, and substituting in the place thereof:

Daniel M. Greeno, General Manager  
Montrose Chemical Corporation of California  
P.O. Box 0898  
Nyala Farms Road  
Westport, Connecticut 06881-0898

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1 F. Article II A of Appendix A of the Order is amended by  
2 the addition of a new subparagraph II.A.5 which states as  
3 follows:

4 5) In light of the analytic results obtained  
5 from Montrose's performance of the RIW  
6 described in subparagraph A.1 and A.3 of  
7 this Article, Montrose agrees, pursuant to  
8 Article IV K of the Consent Order, to  
9 conduct the following additional work:

10 a. Normandie Avenue Ditch Soils:

11 Montrose shall auger approximately ten  
12 (10) additional soil borings in the  
13 Normandie Avenue drainage area between  
14 the site and the Farmer Brothers catch  
15 basin and analyze soil samples from  
16 these borings for total DDT and total BHC  
17 and their isomers in order to define the  
18 vertical and horizontal extent of contamination  
19 in the soil. Montrose shall auger approximately  
20 five (5) additional soil borings in the Los  
21 Angeles Department of Water and Power (LADWP)  
22 easement and area west of Del Amo Boulevard  
23 and analyze soil samples from these borings  
24 for total DDT and total BHC and their isomers  
25 in order to define the vertical and horizontal  
26 extent of contamination in the soil. The  
27 number of borings specified above is a best  
28 estimate of the extent of effort

1 envisioned for the task; the actual  
2 number of borings and related samples  
3 may increase or decrease. Among other  
4 things, the number of borings, the  
5 specific location of the borings,  
6 the specific boring intervals to be  
7 sampled, the sampling protocol,  
8 including arrangements with EPA to  
9 take split/duplicate samples, and  
10 accompanying rationale shall be  
11 included in the sampling plan.

12 b. Off-Site Sediments: Montrose shall  
13 conduct additional investigations in  
14 the surface water drainage ways. This  
15 investigation shall include but may  
16 not be limited to an estimation of sediment  
17 volumes in Torrance Lateral and Dominguez  
18 Channel, sieve analysis for sediments  
19 found in the drainage ways, the  
20 taking of sediment samples in approximately  
21 ten (10) locations in the Dominguez Channel,  
22 including a background sample. If the  
23 sediment depth in any location is greater  
24 than one foot, sediment samples  
25 shall be taken at intervals to determine  
26 the vertical extent of contamination.  
27 The number of samples specified  
28 above is a best estimate of the extent

1 of effort envisioned for this task;  
2 the actual number of samples to be taken  
3 may increase or decrease. Among other  
4 things, the specific location of the  
5 samples, the specific sediment intervals  
6 to be sampled, the number of samples,  
7 the sampling protocol, including  
8 arrangements to allow EPA to take  
9 split/duplicate samples, and the  
10 accompanying rationale shall be included  
11 in the sampling plan.

12 G. Article II B of Appendix A of the Order is amended  
13 as follows:

14 1. In subparagraph II.B.2, the time for  
15 information submission is increased from  
16 twenty (20) days to thirty (30) days.

17 H. Article III A of Appendix A of the Order is amended  
18 by the addition of a new subparagraph III.A.3 which states:

19 3. Additional Work/Task

20 Modifications - Phase 2A Investigation: In  
21 light of the results of the RIW conducted  
22 pursuant to Section III.A.1 of Appendix A,  
23 Montrose and EPA agree that the additional  
24 four (4) shallow on-site Bellflower Aquitard  
25 wells specified in III.A.1(a) need not be  
26 constructed, and that the Phase 2 RIW  
27 specified in III.A.2 (a) through (c)  
28 inclusive should be modified to include

1 certain additional work. In lieu of Article  
2 III.A.2 (a) through (c), Montrose agrees,  
3 pursuant to Article IV K of the Order, to  
4 undertake the following:

5 a. Off-Site Wells: Montrose shall  
6 install approximately twenty-five (25)  
7 off-site groundwater monitoring wells,  
8 approximately half of which will be  
9 constructed in the Bellflower Aquitard  
10 with the remainder in the upper or  
11 lower Gage Aquifer and Lynwood Aquifer.  
12 The number of wells specified above is a  
13 best estimate of the extent of effort  
14 envisioned for this task; the actual  
15 number of wells may increase or decrease.  
16 Among other things, the number, location,  
17 well depth, drilling method, construction  
18 details, sampling protocol including  
19 arrangements to allow EPA to take split/  
20 duplicate samples, and accompanying  
21 rationale should be included in the  
22 sampling plan. Montrose shall provide  
23 lithologic logs of the well borings,  
24 develop the wells, measure water levels  
25 and construct water level contours,  
26 collect and analyze water samples  
27 from the wells for Target Chemicals,  
28 and determine the aquifer unit charact-

eristics such as transmissivity, permeability, and flow velocity through pump testing.

b. On-Site Wells: During the Phase 1 RIW groundwater investigation, contaminants that might be associated with the site were detected in the Gage Aquifer. Montrose shall install approximately three (3) additional on-site groundwater monitoring wells, one of which shall be screened in the Lynwood Aquifer to a depth determined through lithologic and geophysical logs. The number of wells specified above is a best estimate of the extent of effort envisioned for this task; the actual number of wells may increase or decrease. Among other things, the number, location, drilling method, construction details, sampling protocol including arrangements to allow EPA to take split/duplicate samples, and accompanying rationale shall be presented in the sampling plan. Montrose shall provide lithologic logs of the well borings, develop the wells, measure the water levels and construct water level contours, collect and analyze water samples from the wells for Target



1 Chemicals, and determine the aquifer unit  
2 characteristics such as transmissivity,  
3 permeability, and flow velocity through  
4 pump testing.

5 c. On-Site Soils: Because the results  
6 of the Part 2 Phase 1 deep on-site  
7 soils work conducted pursuant to  
8 paragraph III(A)(1)(c) of the original  
9 Appendix A show that reasonable scientific  
10 assumptions about the distribution of  
11 contaminants in deep on-site soils in the  
12 vicinity of the former on-site impoundment  
13 cannot be made, Montrose shall auger  
14 approximately six (6) additional sixty-foot  
15 soil borings, collect soil samples,  
16 and analyze them for Target Chemicals.  
17 The number of soil borings specified above  
18 is a best estimate of the extent of the effort  
19 envisioned for this task; the actual number  
20 and depth of borings may increase or  
21 decrease. Among other things, the number  
22 and depth of the borings, location,  
23 drilling method, sampling intervals,  
24 and sampling protocols including arrangements  
25 to allow EPA to take split/duplicate samples,  
26 and accompanying rationale shall be  
27 included in the sampling plan.

28 d. Additional Investigations - Phase

1           2B: If review of the new data gathered  
2           in work described herein indicates that  
3           additional information regarding the  
4           extent of contamination is necessary  
5           to conduct a feasibility study, and if  
6           pursuant to Article IV K of the Consent  
7           Order, Montrose and EPA agree that additional  
8           investigation is appropriate, Montrose shall  
9           install groundwater monitoring wells in  
10          the aquifer units of concern for which  
11          additional information is required.  
12          Among other things, the number of wells,  
13          location, drilling method, construction  
14          details, sampling protocol including  
15          arrangements to allow EPA to take split/  
16          duplicate samples, and accompanying  
17          rationale shall be included in the sampling  
18          plan. Montrose shall provide lithologic  
19          logs of the well borings, develop the wells,  
20          measure water levels and construct water  
21          level contours, collect and analyze water  
22          samples from the wells for Target Chemicals,  
23          and determine the aquifer unit characteristics  
24          such as transmissivity, permeability, and  
25          flow velocity through pump testing.

26        I. Article III B is amended as follows:

- 27           1. Article II.B.1 and 2 are amended to state  
28           as follows:

1 a. (1) Part 2 Phase 2A On- and Off-Site  
2 Groundwater, On-Site Soils and Off-Site  
3 Soils and Sediment Plans: Within forty-five  
4 (45) calendar days of the effective date of  
5 this Amendment 1 to Appendix A, Montrose  
6 shall submit to EPA draft sampling/work  
7 plans for the Phase 2A groundwater, soils  
8 and sediment investigations discussed in  
9 paragraph II.A.5, (a) and (b) and III.A.3,  
10 (a) through (c), inclusive above.

11 (2) Part 2 Phase 2B Groundwater Plans:  
12 Within thirty (30) calendar days of receipt  
13 of written notification from EPA that such  
14 plans are due, Montrose shall submit to  
15 EPA draft plans for the Phase 2B groundwater  
16 investigation discussed in paragraph  
17 III.A.3(d) above.

18 2. Article III.B.4 and 5 are amended by sub-  
19 stituting "thirty (30) calendar days" for "twenty (20)  
20 calendar days."

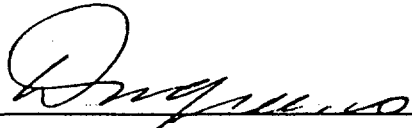
21 J. Effective Date: The First Amendment to the Consent  
22 Order shall be effective upon execution by Montrose and EPA.  
23 The effective date of this Consent Order shall be the date  
24 on which it is signed by EPA. EPA shall provide Montrose  
25 immediate notification of EPA's execution of this First  
26 Amendment.

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IT IS SO AGREED AND ORDERED:

By:

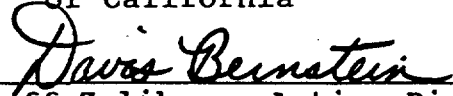


10/22/87

Date

D. M. Greeno, Vice President,  
Secretary, Treasurer  
Montrose Chemical Corporation  
of California

By:



October 28, 1987

Date

for/ Jeff Zelikson, Acting Director  
Toxic and Waste Management Division  
U.S. Environmental Protection Agency  
Region IX